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EXAMINER

WON, MICHAEL YOUNG

ART UNIT PAPER NUMBER

2155

DATE MAILED: 02/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/057,295

Applicant(s)

FRAENKEL ET AL.

Examiner

Michael Y. Won

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment filed December 5, 2005.
2. Claims 1, 13, 17, 19-20, and 25-27 have been amended and new claims 30-39 have been added.
3. Claims 1-39 have been examined and are pending with this action.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

4. Rejection under 35 U.S.C. 112, second paragraph, regarding claim 13 has been withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 25 and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Sweet et al. (US 6,519,714 B1).

INDEPENDENT:

As per **claim 25**, Sweet teaches a method of monitoring the operation of a deployed transactional server, the method comprising:

(a) monitoring response times of the transactional server (see col.3, lines 33-50; col.4, line 60-col.5, line 4; and col.7, lines 32-34) as seen from multiple geographic locations, including locations that are geographically remote from each other and from the transactional server (see col.1, lines 55-62 and col.8, lines 42-45);

(b) concurrently with (a), monitoring a plurality of server resource utilization parameters associated with the transactional server (see col.1, lines 18-21; col.2, lines 34-42; col.3, lines 14-18; and col.5, lines 8-12); and

(c) programmatically evaluating (see col.2, lines 37-41; col.5, lines 5-12; and col.8, lines 8-12) whether a correlation exists between changes in the response times and changes in values of the plurality of server resource utilization parameters over time (utility and see col.1, lines 14-21).

As per **claim 29**, Sweet further teaches wherein the transactional server is a web site system (see col.4, lines 60-66).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-9, 11-16, 18-24, 26, 28, and 30-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sweet et al. (US 6,519,714 B1) in view of Fletcher et al. (US 6,321,264 B1).

As per ***claim 1***, Sweet teaches a method of monitoring the operation of a deployed web site system, the method comprising:

(a) monitoring response times of a web site system (see col.3, lines 33-50; col.4, line 60-col.5, line 4; and col.7, lines 32-34) as seen from multiple geographic locations, including locations that are geographically remote from each other and from the web site system (see col.1, lines 55-62 and col.8, lines 42-45);

(b) concurrently with (a), monitoring a plurality of server resource utilization parameters associated with the web site system from a computer that is local to the web site system (see col.1, lines 18-21; col.2, lines 34-42; col.3, lines 14-18; and col.5, lines 8-12); and

(c) analyzing (see col.1, lines 62-65; col.5, lines 5-12; col.8, lines 8-12; and col.10, lines 42-44) the response times and server resource utilization parameters as monitored in (a) and (b) over a selected time period (see col.4, lines 8-9 and col.7, lines 28-31 & 41-44) to evaluate whether a correlation exists between changes in the response times and changes in values of the plurality of server resource utilization parameters (utility and see col.1, lines 14-21).

Sweet does not explicitly teach wherein the analyzing is performed automatically. Fletcher teaches of wherein the analyzing is performed automatically (see col.13, lines 50-56; "automatically calculated").

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teaching of Fletcher within the system of Sweet by implementing wherein the analyzing is performed automatically within the method of monitoring the operation of a deployed web site system because such an implementation avoids the need for an operator or administrator.

As per **claim 13**, Sweet further teaches a system for monitoring performance of a deployed transactional server, the system comprising:

a first agent (see Fig.2: plural agents; and col.6, lines 39-44) configured to monitor a transactional server over a network (see Fig.4A-4B), the first agent collecting performance data including response times of the transactional server (see col.3, lines 33-50; col.4, line 60-col.5, line 4; and col.7, lines 32-34);

a second agent (see Fig.2: plural agents; and col.6, lines 39-44) configured to monitor server resource utilization of the transactional server, the second agent

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collecting data on one or more server resource utilization parameters (see col.1, lines 18-21; col.2, lines 34-42; col.3, lines 14-18; and col.5, lines 8-12), wherein the second agent monitors server resource utilization over a time period in which the first agent monitors the transactional server (see col.4, lines 8-9 and col.7, lines 28-31 & 41-44); and

an analysis component (see col.1, lines 62-65; col.5, lines 5-12; col.8, lines 8-12; and col.10, lines 42-44) that detects correlation between response times of the transactional server as monitored by the first agent and particular server resource utilization parameters as monitored by the second agent (utility and see col.1, lines 14-21).

Sweet does not explicitly teach wherein the detecting is performed automatically. Fletcher teaches of wherein the detecting is performed automatically (see col.13, lines 50-56; "automatically calculated and accumulated").

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teaching of Fletcher within the system of Sweet by implementing wherein the analyzing is performed automatically within the system for monitoring performance of a deployed transactional server because such an implementation avoids the need for an operator or administrator.

As per **claim 20**, Sweet teaches a method for monitoring the performance of a transactional server, the method comprising:

receiving performance data from a plurality of computers geographically distributed across a network (see col.1, lines 55-62 and col.8, lines 42-45), the plurality

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of computers executing transactions on a transactional server while monitoring associated response times (see col.3, lines 33-50; col.4, line 60-col.5, line 4; and col.7, lines 32-34);

receiving server resource utilization data from a computer that monitors server resource utilization of the transactional server during execution of the transactions by the plurality of computers (see col.1, lines 18-21; col.2, lines 34-42; col.3, lines 14-18; and col.5, lines 8-12); and

analyzing (see col.1, lines 62-65; col.5, lines 5-12; col.8, lines 8-12; and col.10, lines 42-44) the performance data and the server resource utilization data to detect correlation between the performance of the transactional server and one or more particular server resource utilization parameters (utility and see col.1, lines 14-21).

Sweet does not explicitly teach wherein the analyzing is performed automatically. Fletcher teaches of wherein the analyzing is performed automatically (see col.13, lines 50-56; "automatically calculated").

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teaching of Fletcher within the system of Sweet by implementing wherein the analyzing is performed automatically within the method for monitoring the performance of a transactional server because such an implementation avoids the need for an operator or administrator.

As per **claim 33**, Sweet teaches a computer-implemented method of analyzing the performance of a server system, the method comprising:

monitoring a first performance parameter of the server system over a period of time (see col.4, lines 8-9 and col.7, lines 28-31 & 41-44) to generate a series of values of the first performance parameter (see col.3, lines 33-50; col.4, line 60-col.5, line 4; and col.7, lines 32-34), wherein the server system responds to requests from clients during said period of time (see col.4, lines 8-9);

monitoring a second performance parameter of the server system over said period of time (see col.4, lines 8-9 and col.7, lines 28-31 & 41-44) to generate a series of values of the second performance parameter (see col.1, lines 18-21; col.2, lines 34-42; col.3, lines 14-18; and col.5, lines 8-12); and

analyzing (see col.1, lines 62-65; col.5, lines 5-12; col.8, lines 8-12; and col.10, lines 42-44) the values of the first and second performance parameters to evaluate whether a correlation exists between the first performance parameter and the second performance parameter (utility and see col.1, lines 14-21).

Sweet does not explicitly teach wherein the analyzing is performed automatically. Fletcher teaches of wherein the analyzing is performed automatically (see col.13, lines 50-56; "automatically calculated").

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teaching of Fletcher within the system of Sweet by implementing wherein the analyzing is performed automatically within the computer-implemented method of analyzing the performance of a server system because such an implementation avoids the need for an operator or administrator.

DEPENDENT:

As per **claim 2**, Sweet further teaches wherein (a) comprises monitoring the response times from agent computers in at least some of the multiple geographic locations (see col.1, lines 55-62 and col.8, lines 42-45).

As per **claim 3**, Sweet further teaches wherein (a) comprises passively monitoring traffic resulting from actual web site users in at least some of the multiple geographic locations (see col.2, lines 38-42).

As per **claim 4**, Sweet further teaches wherein (a) comprises generating page requests from a data center, and sending the page requests to the web site system via Internet points of presence located in at least some of the multiple geographic locations (see col.4, line 60-col.5, line 4).

As per **claim 5**, Sweet further teaches wherein (b) comprises monitoring at least one server resource utilization parameter of a web server (see col.1, line 66-col.2, line 3 & lines 34-38).

As per **claim 6**, Sweet further teaches wherein (b) comprises monitoring at least one server resource utilization parameter of an application server (see col.3, lines 3-8 and col.8, lines 30-33).

As per **claim 7**, Sweet further teaches wherein (b) comprises monitoring at least one server resource utilization parameter of a database server (see col.3, lines 3-8 and col.8, lines 30-37).

As per **claim 8**, Sweet further teaches wherein (b) comprises monitoring at least one server resource utilization parameter of a network device (see above: network servers are network devices).

As per **claim 9**, Fletcher further teaches wherein the network device is a router (see)

As per **claim 11**, Sweet teaches of further comprising applying a statistical algorithm to a sequence of response time measurements resulting from (a) to automatically detect degradation in performance (inherent: see col.5, lines 5-8).

As per **claim 12**, Sweet teaches of further comprising processing server resource utilization measurements resulting from (b) to identify at least one server resource parameter having a correlation with the degradation in performance (see col.1, lines 36-51 and col.2, lines 8-11).

As per **claim 14**, Sweet further teaches wherein the first agent is configured to monitor network hop delays (see col.14-30).

As per **claim 15**, Sweet further teaches wherein the first agent sends request messages to the transactional server to measure the response times (see col.4, line 60-col.5, line 4).

As per **claim 16**, Sweet further teaches wherein the first agent passively monitors traffic between client computers and the transactional server to measure the response times (see col.2, lines 38-42).

As per **claim 18**, Sweet further teaches wherein the second agent is configured to monitor server resource utilization of a database server (see claim 7 rejection above).

As per **claim 19**, Sweet teaches of further comprising an analysis component that automatically detects correlations between response times and server resource utilization parameters (see col.3, lines 30-32 & 45-50), wherein the analysis component analyzes sequence of values of said response time to automatically detect degradations in the performance of the transactional server (implicit: see col.6, lines 35-38 and col.10, lines 21-23).

As per **claim 21**, Sweet further teaches wherein the performance data includes time stamps for associating the performance data and the server resource utilization data (see col.7, lines 28-31 & 41-44).

As per **claim 22**, Sweet further teaches wherein the server resource utilization data includes central process unit (CPU) utilization data associated with the transactional server (see col.3, lines 14-18).

As per **claim 23**, Sweet further teaches wherein the server resource utilization data includes memory allocation data (see col.8, lines 30-33).

As per **claim 24**, Sweet further teaches wherein the server resource utilization data includes at least one of the following: hits per second data, requests queued data, current connections data, connection attempts data, or disk utilization data (see col.3, lines 33-36).

As per **claim 26**, Sweet further teaches wherein (c) comprises automatically analyzing response time data and server resource utilization data resulting from (a) and (b), respectively (see claim 1 rejection above).

As per **claim 28**, Sweet further teaches wherein (c) comprises analyzing response time data and server resource utilization data resulting from (a) and (b) with an automated analysis system that automatically detects correlations (see col.5, lines 12-18).

As per **claim 30**, Sweet teaches of further comprising, in response to detecting in (c) a correlation between a response time degradation and a particular server resource utilization parameter, providing a visual representation of said correlation to a user (see col.8, lines 11-12).

As per **claims 31, 32, and 38**, which depends on claims 1, 20, and 33, Sweet further teaches a computer system programmed to perform the method (see col.2, line 34).

As per **claims 34, 35, and 36**, Sweet further teaches wherein the first performance parameter is a response time parameter, the second performance parameter is a server resource utilization parameter, and the second performance parameter is an operating system resource parameter, respectively (see col.2, lines 34-42 and col.3, lines 14-18).

As per **claim 37**, Sweet further teaches wherein the step of automatically analyzing the values of the first and second performance parameters is performed in response to a user action (see col.2, lines 47-53).

As per **claim 39**, Sweet further teaches a computer program which embodies the method of Claim 33 represented in computer storage (see col.2, lines 37-41).

7. Claims 10, 17, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sweet et al. (US 6,519,714 B1) and Fletcher et al. (US 6,321,264 B1), and further in view of Booman et al. (US 6,216,169 B1).

As per **claim 10**, Sweet and Fletcher do not explicitly teach wherein the network device is a bridge. Booman teaches of a network device that a bridge (see col.6, lines 11-14).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Booman within the system of Sweet and Fletcher by implementing a bridge as the network device within the method of monitoring the operation of a deployed web site system because these network devices are known devices within all networks and Booman teaches that “these elements all related to computer performance data or network management data” (see col.3, lines 59-63).

As per **claims 17 and 27**, Sweet and Fletcher do not explicitly teach of further comprising report generating component that generates reports associating the response times with the server resource utilization parameters by displaying the response times and the server resource utilization parameters on a time-synchronized graph or a graph for a selected time window, to permit a human operator to evaluate correlation detected by the analysis.

Booman teaches of displaying the response times and the server resource utilization parameters on a time-synchronized graph or a graph for a selected time window (see col.8, lines 51-66 and col.12, lines 37-39).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Booman within the system of Sweet and Fletcher by implementing displaying the response times and the server resource utilization parameters on a time-synchronized graph within the method and system for monitoring performance of a deployed transactional server because graphs and charts are known to quickly convey information by visually displaying data in a summarized form for comparing data and assessing results.

Booman teaches of in response to detecting in (c) a correlation between a response time degradation and a particular server resource utilization parameter, providing a visual representation of said correlation to a user (see claim 17 and 27 rejection above).

Response to Arguments

8. Applicant's arguments with respect to all independent claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

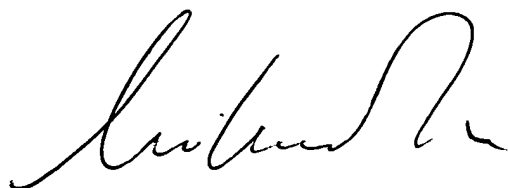
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Y. Won whose telephone number is 571-272-3993. The examiner can normally be reached on M-Th: 7AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on 571-272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael Won



February 9, 2006



SALEH NAJJAR
SUPERVISORY PATENT EXAMINER